

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Claims 1-14 have been cancelled.

15. (Previously Presented) An underground boring apparatus, comprising:

a boring tool;

a sonde associated with the boring tool, the sonde comprising an electromagnetic transmitter that transmits electromagnetic radiation, a sensor that senses a predetermined rotation sequence of the sonde, and a processor that changes the frequency of transmission of the electromagnetic radiation in response to sensing of the predetermined rotation sequence by the sensor; and

a boring tool device that drives the boring tool and for applying the predetermined rotation sequence to the boring tool.

16. (Previously Presented) A boring apparatus according to claim 15, wherein the processor is programmed to change the frequency of transmission of the electromagnetic radiation in response to sensing a predetermined sequence of rotations.

17. (Previously Presented) A boring apparatus according to claim 16, wherein the sequence is chosen so that it will not occur during the normal operation of the boring tool.

18. (Previously Presented) A boring apparatus according to claim 16, wherein the processor is programmed to change the frequency of transmission of the electromagnetic radiation in response to a specific time limit of the rotation sequence.

19. (Previously Presented) An apparatus for changing a transmission frequency of a transmitting device in an underground boring tool, comprising:

a boring tool;

a sonde associated with the boring tool, the sonde comprising a microprocessor, a rotation sensor and a transmitter; and

a drive device that drives the boring tool, the drive device configured to apply a predetermined rotation sequence for the boring tool.

20. (Previously Presented) The apparatus as in claim 19, wherein the rotation sensor detects the predetermined rotation sequence.

21. (Previously Presented) The apparatus as in claim 20, wherein the predetermined rotation sequence instructs the sonde to change a transmitting frequency of the transmitter.

22. (Previously Presented) The apparatus as in claim 19, wherein the rotation sequence is carried out for a specific period of time.

23. (Previously Presented) The apparatus as in claim 19, wherein the drive device further comprises a receiver.

24. (Previously Presented) The apparatus as in claim 23, wherein the receiver receives remote commands.
25. (Previously Presented) The apparatus as in claim 24, wherein the remote commands are transmitted by a remote control device.
26. (Previously Presented) The apparatus as in claim 25, wherein the remote control device detects the transmission frequency.
27. (Previously Presented) A method of changing an electromagnetic transmission frequency of a sonde associated with a boring tool used for locating the boring tool, the method comprising:
- instructing a drive device to initiate a rotation sequence of the boring tool;
 - rotating the boring tool in the rotation sequence; and
 - changing the transmission frequency of the sonde based upon occurrence of the rotation sequence
28. (Previously Presented) The method according to claim 27, wherein the rotation sequence comprises a predetermined sequence of rotations.
29. (Previously Presented) The method according to claim 28, wherein the rotation sequence is chosen so that it will not occur during the normal operation of the boring tool.

30. (Previously Presented) The method according to claim 28, wherein each rotation is carried out within a time limit.

31. (Previously Presented) A method according to claim 29, wherein each rotation is carried out within a time limit.

32. (Previously Presented) A system for changing an electromagnetic transmission frequency of a sonde associated with a boring tool used for locating the boring tool, the system comprising:

means for instructing a drive device to initiate a rotation sequence of the boring tool;

means for rotating the boring tool in the rotation sequence; and

means for changing the transmission frequency of the sonde based upon occurrence of the rotation sequence.

33. (Previously Presented) The system according to claim 32, wherein the rotation sequence comprises a predetermined sequence of rotations.

34. (Previously Presented) The system according to claim 33, wherein the rotation sequence is chosen so that it will not occur during the normal operation of the boring tool.

35. (Previously Presented) The system according to claim 33, wherein each rotation is carried out within a time limit.

36. (Previously Presented) The system according to claim 34, wherein each rotation is carried out within a time limit.

37. (Previously Presented) A sonde associated on a boring tool, comprising:

an electromagnetic transmitter that transmits electromagnetic radiation;

a sensor that senses a rotation sequence of the sonde; and

a processor that controls the electromagnetic transmitter in response to sensing of the rotation sequence by the sensor.

38. (Previously Presented) The sonde according to claim 37, wherein the processor is programmed to change the frequency of transmission of the electromagnetic radiation in response to the sequence of rotations.

39. (Previously Presented) The sonde according to claim 38, wherein the sequence is chosen so that it will not occur during the normal operation of the boring tool.

40. (Previously Presented) The sonde according to claim 38, wherein the processor is programmed to change the frequency of transmission of the electromagnetic radiation in response to each rotation carried out for a time limit.

41. (Previously Presented) The sonde according to claim 39, wherein the processor is programmed to change the frequency of transmission of the electromagnetic radiation in response to each rotation carried out within a time limit.

42. (Previously Presented) A sonde associated with a boring tool for location of the boring tool underground, the sonde comprising:

means for transmitting electromagnetic radiation to a remote device at a frequency;

means for sensing a rotation sequence of the sonde; and

means for changing the frequency of the means for transmitting in response to the means for sensing when the rotation sequence of the boring tool is sensed.

43. (Previously Presented) The sonde according to claim 42, wherein the means for changing is adapted to change the frequency of transmission of the electromagnetic radiation in response to the sequence of rotations.

44. (Previously Presented) The sonde according to claim 43, wherein the rotation sequence is chosen so that it will not occur during the normal operation of the boring tool.

45. (Previously Presented) The sonde according to claim 43, wherein the means for changing is adapted to change the frequency of transmission of the electromagnetic radiation in response to the rotation sequence carried out for a specific time limit.

46. (Previously Presented) A method for using a sonde associated with a boring tool for location of the boring tool underground, the sonde comprising:

transmitting electromagnetic radiation to a remote device at a frequency;

sensing a rotation sequence of the sonde; and

changing the frequency of the transmitting in response to the means for sensing detecting the rotation sequence of the boring tool.

47. (Previously Presented) The sonde according to claim 46, wherein the means for changing is adapted to change the frequency of transmission of the electromagnetic radiation in response to the rotation sequence.

48. (Previously Presented) The sonde according to claim 47, wherein the sequence is chosen so that it will not occur during the normal operation of the boring tool.

49. (Previously Presented) The sonde according to claim 47, wherein the means for changing is adapted to change the frequency of transmission of the electromagnetic radiation in response to the rotation sequence carried out for a specific time limit.

50. (Previously Presented) A locator apparatus for locating an underground boring tool, comprising:

a sonde attached to the boring tool, the sonde comprising an electromagnetic transmitter that transmits electromagnetic radiation at a frequency, a sensor that senses predetermined rotation of the sonde, and a processor that changes the frequency of transmission of the electromagnetic radiation in response to sensing of the predetermined rotation by the sensor; and

a locator that receives the electromagnetic radiation transmitted by the sonde to identify the location of the boring tool.

51. (Previously Presented) The locator apparatus according to claim 50, wherein the processor is programmed to change the frequency of transmission of the electromagnetic radiation in response to a predetermined sequence of rotations.

52. (Previously Presented) The locator apparatus according to claim 51, wherein the sequence is chosen so that it will not occur during the normal operation of the boring tool.

53. (Previously Presented) The locator apparatus according to claim 52, wherein the processor is programmed to change the frequency of transmission of the electromagnetic radiation in response to the rotation sequence carried out for a specific time limit.

54. (Previously Presented) A system for locating an underground boring tool, comprising:

means for determining the location of the boring tools comprising means for transmitting electromagnetic radiation at a frequency, means for sensing a predetermined rotation of the sonde, and means for changing the frequency of transmission of the electromagnetic radiation in response to the means for sensing the predetermined rotation by the sensor; and

means for locating the boring comprising means for receiving the electromagnetic radiation transmitted by the means for determining to identify the location of the boring tool.

55. (Previously Presented) The system apparatus according to claim 54, wherein the means for changing is programmed to change the frequency of transmission of the electromagnetic radiation in response to sensing of a predetermined sequence of rotations.

56. (Previously Presented) The system according to claim 55, wherein the sequence is chosen so that it will not occur during the normal operation of the boring tool.

57. (Previously Presented) The system according to claim 56, wherein the means for changing is programmed to change the frequency of transmission of the electromagnetic radiation in response to each rotation carried out for a time limit.

58. (Previously Presented) A method for locating an underground boring tool, comprising:
determining the location of the boring tool with a sonde that comprises a transmitter that transmits electromagnetic radiation at a frequency, a sensor that senses a predetermined rotation of the sonde, and a processor that changes the frequency of transmission of the electromagnetic radiation in response to the sensor sensing the predetermined rotation by the sensor; and
locating the boring tools with a locator that comprises a receiver that receives the electromagnetic radiation transmitted by the sonde to identify the location of the boring tool.

59. (Previously Presented) The method according to claim 58, wherein the processor is programmed to change the frequency of transmission of the electromagnetic radiation in response to a predetermined sequence of rotations.

60. (Previously Presented) The method according to claim 59, wherein the sequence is chosen so that it will not occur during the normal operation of the boring tool.

61. (Previously Presented) The method according to claim 60, wherein the means for changing is programmed to change the frequency of transmission of the electromagnetic radiation in response to each rotation carried out for a time limit.

62. (Previously Presented) A method of determining information related to a state of an underground boring tool using a sonde associated with the boring tool, the method comprising:
transmitting electromagnetic radiation at a transmission frequency from the sonde;
sensing a rotation of the sonde; and
changing the transmission frequency upon detection of the rotation.

63. (Previously Presented) The method according to claim 62, further comprising detecting the transmitted electromagnetic radiation at a surface above the boring tool.

64. (Previously Presented) The method according to claim 63, further comprising determining the information related to the state of the boring tool using the detected electromagnetic radiation.

65. (Previously Presented) A method according to claim 63, wherein the rotation comprises a predetermined sequence of rotations.

66. (Previously Presented) A method according to claim 65, wherein the sequence of rotating is chosen so that it will not occur during the normal operation of the boring tool.

67. (Previously Presented) A method according to claim 66, wherein each rotation is carried out for a specific time limit.

68. (Previously Presented) A method for changing the transmission frequency of a sonde below a ground surface, comprising:

initiating a predetermined rotation of a boring tool;

detecting the predetermined rotation of the boring tool by the sonde; and

changing the transmission frequency of the sonde in response to the predetermined rotation.

69. (Previously Presented) A system for changing the transmission frequency of a sonde below a ground surface, comprising:

means for initiating a predetermined rotation of a boring tool;

means for detecting the predetermined rotation of the boring tool by the sonde;

means for changing the transmission frequency of the sonde in response to the predetermined rotation.